



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,161	11/25/2003	B. Robert Franz Jr.	016336-001011US	7019
20350	7590	03/25/2008	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP			JOIKE, MICHELE K	
TWO EMBARCADERO CENTER			ART UNIT	PAPER NUMBER
EIGHTH FLOOR			1636	
SAN FRANCISCO, CA 94111-3834			MAIL DATE	DELIVERY MODE
			03/25/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,161	<b>Applicant(s)</b> FRANZA ET AL.
	<b>Examiner</b> MICHELE K. JOIKE	<b>Art Unit</b> 1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 27 December 2007.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 18-30 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 18,19 and 22 is/are rejected.

7) Claim(s) 20-21, 23-30 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/946B)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

#### **DETAILED ACTION**

Receipt is acknowledged of a reply to the previous Office Action, filed December 27, 2007. Claims 18-30 are pending and under consideration in the instant application. Any rejection of record in the previous Office Action, mailed June 27, 2007 that is not addressed in this action has been withdrawn.

Because this Office Action only maintains rejections set forth in the previous Office Action and/or sets forth new rejections that are necessitated by amendment, this Office Action is made FINAL.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,338,686 (hereinafter Hellerstein). This rejection is maintained essentially for reasons made of record in the prior office action mailed June 27, 2007.

#### ***Response to Arguments Concerning Claim Rejections – 35 USC § 102 (b)***

Applicants' arguments filed December 27, 2007 have been fully considered but they are not persuasive.

The following grounds of traversal are presented:

Molar excess as described and used by Hellerstein describes a calculation of the observed distribution of a mass isotopomer in a polymer containing at least two identical subunits. Each of the isolated calculated values is for a particular isotopomer species. The determined value for each isotopomer species is then compared to a probability matrix that is created on assumptions of precursor pool percentages, which in the method of Hellerstein results in the calculation of the molar excess for each isotopomer species. Once the molar excess is calculated, the frequency of replacement for each isotopomeric species is compared at two different time points to calculate the decay of a biopolymer. As such, Hellerstein does not teach every element of the claimed invention.

These arguments are not found persuasive for the following reasons.

As discussed in previous office actions, Hellerstein teaches the method steps as presented in claims 18, 19 and 22. As mentioned by Applicants and in Hellerstein, samples are taken from a biopolymer subunit pool. Applicants' samples are also taken from a biopolymer pool. Applicants are arguing that the molar excess is calculated based on isotopomeric species. The Examiner still does not see any difference between the method taught in Hellerstein and the instant application. In Hellerstein samples are taken from a pool, the relative abundance of monisotopic and isotopomeric peaks using mass spectrometry are measured, the difference between the peaks of the first and second samples are calculated, and the rate of biopolymer decay is determined. Even if isotopomer species are used, there is nothing in the instant claims

to prevent the first sample of the biopolymer pool to encompass an isotopomer species. The instant claims are broad, and the method in Hellerstein reads on them.

***Allowable Subject Matter***

Claims 20-21 and 23-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE K. JOIKE whose telephone number is (571)272-5915. The examiner can normally be reached on M-F, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NANCY VOGEL/  
Primary Examiner, Art Unit 1636

Michele K Joike, Ph.D.  
Examiner  
Art Unit 1636